

SUBSTITUTE SEQUENCE LISTING

<110> BLANC, Veronique

THIBAUT, Denis

BAMAS-JACQUES, Nathalie

BLANCHE, Francis

COUZET, Joel

BARRIERE, Jean-Claude

DEBUSSCHE, Laurent

FAMECHON, Alain

PARIS, Jean-Marc

DUTRUC-ROSSET, Gilles

<120> Streptogramins And Method For Preparing Same By
Mutasyntesis

<130> Streptogramin genes

<140> 08/765,907

<141> 1997-03-20

<160> 17

<170> PatentIn Ver. 2.0

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<211> 2888

<212> DNA

<213> Streptomyces pristinaespiralis

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<211> 297

<212> PRT

<213> Streptomyces pristinaespiralis

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Gly Ala Val Gly Arg Met Phe Ser His Trp Leu Val Arg Ser Gly Val

20 25 30

Ala Val Thr Trp Leu Asp Val Ala Gly Ala Gly Ala Ala Asp Gly Val

35 40 45

Arg Val Val Ala Gly Asp Val Arg Arg Pro Gly Pro Glu Ala Val Ala

50 55 60

Ala Leu Ala Ala Ala Asp Val Val Val Leu Ala Val Pro Glu Pro Val

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Ala Trp Glu Ala Val Glu Val Leu Ala Gly Val Met Arg Pro Gly Ala

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Val Leu Ala Asp Thr Leu Ser Val Lys Ser Arg Ile Ala Gly Arg Leu

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Arg Glu Ala Ala Pro Gly Leu Gln Ala Val Gly Leu Asn Pro Met Phe

115

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125

Ala Pro Ser Leu Gly Leu Gln Gly Arg Pro Val Ala Ala Val Val Val

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140

Thr Asp Gly Pro Gly Val Arg Ala Leu Val Glu Leu Val Ala Gly Trp

145

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Gly Ala Arg Val Val Glu Met Pro Ala Arg Arg His Asp Glu Leu Thr

165

170

175

Ala Ala Gln Gln Ala Ala Thr His Ala Ala Val Leu Ala Phe Gly Leu

180

185

190

Gly Leu Gly Glu Leu Ser Val Asp Val Gly Ala Leu Arg Asp Ser Ala

195

200

205

Pro Pro Pro His Leu Ala Met Leu Ala Leu Leu Ala Arg Ile Ala Gly

210

215

220

Gly Thr Pro Glu Val Tyr Phe Asp Ile Gln Ala Ala Asn Pro Gly Ala

225

230

235

240

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Pro Ala Ala Arg Gln Ala Leu Gly Arg Gly Leu Val Arg Leu Gly Gln
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Ala Val Glu Arg Gly Asp Glu Glu Thr Phe Ala Ala Leu Phe Ala Glu
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Leu Arg Gly Val Leu Gly Glu His Gly Ala Glu Leu Glu Arg Leu Cys
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Ala Arg Met Phe Thr Ala Leu His Pro
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<210> 4

<211> 387

<212> DNA

<213> *Streptomyces pristinaespiralis*

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<213> Streptomyces pristinaespiralis

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Asp Ala Ala Leu Leu Asp Ala Val Arg Thr Arg Leu Asp Ile Cys Leu

35 40 45

Arg Ile Gly Glu Tyr Lys Arg Leu His Gln Val Pro Met Met Gln Pro

50 55 60

His Arg Ile Ala Gln Val His Ala Asn Ala Ala Arg Tyr Ala Ala Asp

65 70 75 80

His Gly Ile Asp Pro Ala Phe Leu Arg Thr Leu Tyr Asp Thr Ile Ile

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Thr Glu Thr Cys Arg Leu Glu Asp Glu Trp Ile Ala Ser Gly Gly Ala

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<211> 4496

<212> DNA

<213> *Streptomyces pristinaespiralis*

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Thr Ser Val Ala Val Gly Gln Gly Pro Val Leu Pro Asp Thr Gly Val
210 215 220

Arg Glu His Leu His Ile Asn Ala Val Gly Ala Asp Leu Val Gly Lys
225 230 235 240

Thr Glu Leu Pro Leu Gly Leu Leu Glu Arg Ala Phe Val Thr Ala Asp
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His Pro Glu Gln Ala Leu Arg Glu Gly Glu Cys Gln Gln Leu Ser Ala
260 265 270

Asp Arg Leu Gly Pro Gln Leu Ala His Leu Cys Ala Asp Pro Ala Ala
275 280 285

Ala Ala Gly Arg Gln Asp Thr Leu Ser Val Phe Asp Ser Thr Gly Phe
290 295 300

Ala Phe Glu Asp Ala Leu Ala Met Glu Val Phe Leu Glu Ala Ala Ala
305 310 315 320

Glu Arg Asp Leu Gly Ile Arg Val Gly Ile Glu His His Pro Gly Asp
325 330 335

Ala Leu Asp Pro Tyr Ala Leu Gln Pro Leu Pro Leu Pro Leu Ala Ala
340 345 350

Pro Ala His Pro
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Ala Asp Arg Thr Leu Phe Arg Ser Trp Ser Asp Arg Met Leu Gln Met
145 150 155 160

Gln Val Ala Asp Pro Ala Asp Met Gln Phe Gly Asp Asp Ala Asp Glu
165 170 175

Asp Tyr Gln Arg Leu Val Lys Glu Pro Met Arg Ala Met His Ala Tyr
180 185 190

Leu His Asp His Val Thr Asp Arg Arg Ala Arg Pro Ala Asn Asp Leu
195 200 205

Ile Ser Ala Leu Val Ala Ala Arg Val Glu Gly Glu Arg Leu Thr Asp
210 215 220

Glu Gln Ile Val Glu Phe Gly Ala Leu Leu Leu Met Ala Gly His Val
225 230 235 240

Ser Thr Ser Met Leu Leu Gly Asn Thr Val Leu Cys Leu Lys Asp His
245 250 255

Pro Arg Ala Glu Ala Ala Ala Arg Ala Asp Arg Ser Leu Ile Pro Ala
260 265 270

Leu Ile Glu Glu Val Leu Arg Leu Arg Pro Pro Ile Thr Val Met Ala
275 280 285

Arg Val Thr Thr Lys Asp Thr Val Leu Ala Gly Thr Thr Ile Pro Ala
290 295 300

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Arg Gly His Gly Pro Gly Glu Cys Pro Thr Ala Glu Arg Val Trp Phe
 355 360 365

Glu Glu His Met Asn Leu Pro Cys His Pro Gly Leu Ser Asp Gly Gln
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Val Asp Tyr Met Val Glu Ala Val Thr Arg Ala Leu His Glu Ala His
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Gly Thr Gly Thr Arg Val Ala Ala Gly His Leu Pro
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<211> 2220

<212> DNA

<213> Streptomyces pristinaespiralis

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<211> 719

<212> PRT

<213> *Streptomyces pristinaespiralis*

<400> 15

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Val Val Arg Asn Asp Asp Thr Arg Thr Trp Gln Ala Leu Ala Pro Gly

35 40 45

Asp Phe Asp Asn Val Val Val Ser Pro Gly Pro Gly His Pro Ala Thr

50 55 60

Asp Thr Asp Leu Gly Leu Ser Arg Arg Val Ile Thr Glu Trp Asp Leu

65 70 75 80

Pro Leu Leu Gly Val Cys Leu Gly His Gln Ala Leu Cys Leu Leu Ala

85 90 95

Gly Ala Ala Val Val His Ala Pro Glu Pro Phe His Gly Arg Thr Ser

100 105 110

Asp Ile Arg His Asp Gly Gln Gly Leu Phe Ala Asn Ile Pro Ser Pro

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Leu Thr Val Val Arg Tyr His Ser Leu Thr Val Arg Gln Leu Pro Ala

130 135 140

Asp Leu Arg Ala Thr Ala His Thr Ala Asp Gly Gln Leu Met Ala Val

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Ile Ser Ser Glu His Gly His Arg Met Leu Ala Asn Phe Arg Asp Leu			
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Ser Leu Arg Ala Ala Gly His Arg Pro Pro His Thr Glu Arg Ile Pro			
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Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Pro Ala			
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Ser Ala Pro Val Gly Glu Tyr Arg Leu His Val Arg Glu Val Ala Cys			
	225	230	235 240
Val Pro Asp Ala Asp Ala Ala Phe Thr Ala Leu Phe Ala Asp Ala Pro			
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Ala Arg Phe Trp Leu Asp Ser Ser Arg Val Glu Pro Gly Leu Ala Arg			
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Phe Thr Phe Leu Gly Ala Pro Ala Gly Pro Leu Gly Glu Gln Ile Thr			
	275	280	285
Tyr Asp Val Ala Asp Arg Ala Val Arg Val Lys Asp Gly Ser Gly Gly			
	290	295	300
Glu Thr Arg Arg Pro Gly Thr Leu Phe Asp His Leu Glu His Glu Leu			
	305	310	315 320

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Ala Ala Arg Ala Leu Pro Ala Thr Gly Leu Pro Phe Glu Phe Asn Leu

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Gly Tyr Val Gly Tyr Leu Gly Tyr Glu Thr Lys Ala Asp Ser Gly Gly

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Glu Asp Ala His Arg Gly Glu Leu Pro Asp Gly Ala Phe Met Phe Ala

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Asp Arg Met Leu Ala Leu Asp His Glu Gln Gly Arg Ala Trp Leu Leu

370

375

380

Ala Leu Ser Ser Thr Arg Arg Pro Ala Thr Ala Pro Ala Ala Glu Arg

385

390

395

400

Trp Leu Thr Asp Ala Ala Arg Thr Leu Ala Thr Thr Ala Pro Arg Pro

405

410

415

Pro Phe Thr Leu Leu Pro Asp Asp Gln Leu Pro Ala Leu Asp Val His

420

425

430

Tyr Arg His Ser Leu Pro Arg Tyr Arg Glu Leu Val Glu Glu Cys Arg

435

440

445

Arg Leu Ile Thr Asp Gly Glu Thr Tyr Glu Val Cys Leu Thr Asn Met

450

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460

Leu Arg Val Pro Gly Arg Ile Asp Pro Leu Thr Ala Tyr Arg Ala Leu

465

470

475

480

Protein Data Bank

Ala Leu Gly Tyr Phe Ala Leu Ser Gly Ala Ala Asp Leu Ser Ile Val

645

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Ile Arg Thr Ile Val Ala Thr Glu Glu Ala Ala Thr Ile Gly Val Gly

660

665

670

Gly Ala Val Val Ala Leu Ser Asp Pro Asp Asp Glu Val Arg Glu Met

675

680

685

Leu Leu Lys Ala Gln Thr Thr Leu Ala Ala Leu Arg Gln Ala His Ala

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<400> 16

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Gly Gly Val Leu Leu Leu Glu His Gly Ser Tyr Gln Leu Ala Ser Val

245

250

255

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Ala Pro Pro Ala

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